

Amendments to the Specification:

Please replace the paragraph beginning at page 13, line 23, with the following rewritten paragraph:

--An auto-correlation overlap-scan can be performed as described above for a cross-correlation scan with an exception that it is the pulse repetition frequency of the one laser (~~laser~~) (laser 14) that is scanned or swept (with the delay path 47B fixed) rather than the phase between two laser each providing a pulse train. The sweeping is controlled by a frequency sweep signal provided to a detector (photodiode) 58 and frequency controller 100 compares this with the frequency requested by the sweep signal and operates one or both of PZT 40 and device 28 to adjust the length of resonator 26 to establish the desired pulse repetition frequency. The length of the resonator can be varied continuously or incrementally as would be known to one of ordinary skill in the art.--